

IN THE SENATE OF THE UNITED STATES.

JUNE 1, 1896.—Ordered to be printed.

Mr. NELSON, from the Committee on Commerce, submitted the following

REPORT:

[To accompany S. 3049.]

The Committee on Commerce, to whom was referred the bill (S. 3049) to incorporate the Maritime Canal of North America, and for other purposes, beg leave to report as follows:

This bill is to incorporate a company to construct and operate a ship canal from Lake Erie to New York of ampler proportions and ampler locks than any hitherto attempted elsewhere in the world. The course is around Niagara Falls, in the State of New York, passing that declivity of 326 feet with two locks; thence through Lake Ontario and down the St. Lawrence to a point near the international boundary; thence to Lake Champlain, and thence to the Hudson River and the ocean.

The number of locks between the Great Lakes and New York is limited by the bill to 10—large enough to accommodate the largest craft—whereas the Welland Canal around Niagara, in Canada, contains 25, and the Erie Canal, from Buffalo to Albany, between 70 and 80 locks, the latter passing boats of 240 tons and the former boats of 1,600 only, while the Great Lakes traffic is mostly handled in craft of from 2,000 to 3,000 tons, making existing tributary waterways useless except to broken-bulk business.

Of four canal lines originally projected to connect the seaboard with the interior only two were completed, the Erie and Pennsylvania. The latter is almost abandoned, and the Erie Canal, which played a great part in our past history and is unparalleled in advantages of location and terminals, has been outgrown, its tonnage having diminished one-third and its proportion of through business fallen to 4 per cent. The six canals built to connect the Great Lakes with the Ohio and Mississippi are abandoned by through traffic, although two or three of them are of use locally.

The rivers of the Mississippi system have likewise lost certain lines of traffic, only one item—coal—increasing in tonnage, and that on account of favorable conditions and the extremely low cost of transportation downstream, 1 ton 100 miles for 1 cent.

In striking contrast, the traffic on the Great Lakes increases in volume, variety, and value at a faster rate than population and railway traffic, the tonnage through the "Soo" having grown over 700 per cent in thirteen years.

Lake transportation, by reason of its cheapness, adds as much as 10 to 12 cents a bushel to the price the far Western farmer gets for his grain; lengthens by 200 to 300 miles the radius of the circle within which food can be grown for shipment; opens to profitable use thousands of acres of land, and brings together the coal of Ohio and Pennsylvania and the ores of Minnesota, Michigan, and Wisconsin. As a factor in the growth and development of the country, it is many times more powerful than any other form of transportation. On the trunk-line railroads charges average about five-eighths of a cent a ton per mile, and on the roads west of the lakes they exceed 1 cent, while on the lakes they average less than 1 mill a ton per mile.

The people have learned that reductions in transportation rates not only increase the profits on what they sell abroad, but also enhance the value of all their other property. They know that what they pay for carrying 1 bushel of wheat from Dakota to Liverpool will carry 2 competing bushels from Argentina, and that they are handicapped to that extent. They see their products afloat upon the Great Lakes in steamships larger than the tramp ocean carriers, only to be unloaded again at the foot of the lakes, at a cost almost as great as that of the entire lake carriage. They ask why they are to endure such a burden, why their products once afloat should not go on to their final destination without breaking bulk, and they demand deep-water navigation to the seaboard. Every year they assemble in great conventions to renew this demand, and they will continue to do so until their request shall have been granted.

The genius of a private citizen, William Hamilton Merritt, a native of New York, gave the Welland Canal to commerce, on Canadian soil, about seventy years ago, and that has been the only outlet from the interior of the continent into Lake Ontario during the intervening period.

H. H. Day, some years ago, invented an alternate chambered lock, and employed a portion of his fortune in work on a channel around Niagara Falls on the American side. The enterprise was too great for his unaided finances; others could not see as he did; the Government refused to come to the rescue, and so the commerce of the United States continued to pay tolls to Canada through the 25 locks of the Welland Canal.

The great descent from Lake Erie to Lake Ontario has stood as a barrier to a ship outlet to the seaboard and to foreign ports. Under old methods, 15 or 16 locks of 20 feet lift each, built of such materials and dimensions that they would not have to be renewed and enlarged every few years—as has been the case with those at the “Soo”—would cost not less than \$90,000,000. Such an outlay, just for the locks to get into the next pocket—Lake Ontario—is more than Congress would be likely to devote to water transportation in the immediate future.

The gentlemen asking the passage of this bill to incorporate them as the Maritime Canal of North America, recognizing this barrier as the chief obstacle, financially and otherwise, to be overcome, have developed and patented an appliance—the Dutton pneumatic lock—by which, they claim, they can hoist a ship over the Niagara declivity of 326 feet at two lifts, passing this great height as quickly and safely as a vessel drops through the 18-foot Leonardo lock at the “Soo,” and with the use of only a small amount of water.

They have also settled the question of route by comparative examinations and surveys—a thing the Government has never undertaken—and now, prepared for work, come to Congress and ask absolutely

nothing except such a franchise as has been extended to the Maritime Canal Company of Nicaragua, the North River Bridge Company, and similar corporations. The charter for which they pray contains the usual provisions. In case the Government should ever need to seize or wish to acquire the proposed works, or any part of them, it provides the means of fixing compensation, particularly excluding payment for charter or franchise rights or any other feature not based on an actual business foundation.

Tolls must be just and reasonable, without discrimination as to persons or places, and subject to the Interstate Commerce Commission and to Congressional action; and the affairs of the corporation will be regulated, so far as the public is concerned, about as if the canal were wholly the creation and property of the United States.

The bill opens the way to no Government aid or guaranty at any time, in any way, and creates no Federal liability. It contains no ambiguous provisions, but is clear and fair. And as to the proposed work itself—the Maritime Canal of North America—its construction, it is believed, would inaugurate a change in domestic transportation which could not prove otherwise than beneficial. The existing situation presents features that are extremely unfavorable. Every pound of American ship traffic into or out of Lake Ontario is compelled to use Canadian locks and canals, and pay tolls to the Canadian treasury, a distinct burden on home production, manufacturing, and consumption, for which there is no offset; and domestic traffic destined for seaboard and foreign ports that does not attempt to pass into Lake Ontario must break bulk and suffer waste, tolls, and transfer charges at the foot of Lake Erie. Any move that promises to lift these burdens—from which at present there is no escape—deserves encouragement.

As to the domestic economy of the project, the New York Sun, one of the able and broad public journals of the world, ended a favorable editorial with this concise statement:

With the exception of cotton, all the leading articles of export from the United States are purchased west of the Alleghany Mountains.

Coal can be put afloat in Lake Erie cheaper than anywhere else on earth; the richest and cheapest iron ore is that of Lake Superior; iron and steel and their manufactures are likewise cheaper there; ships are now being built on Lake Erie cheaper than similar ships are being contracted for in British yards, and these things would each and all be the basis of a profitable export trade if they could be brought to seaboard cheaply. The maritime canal to the lakes should make New York a great manufacturing point for metals. At present there is not a pound produced here because of prohibitive freight tariffs on ores, fuels, and fluxes; but such a canal ought to enable the manufacturer to assemble in this port a greater variety of raw materials and at lower prices than anywhere outside of the Great Lakes themselves. Then New York can make metals and build ships and machinery and supplement commercial primacy with manufacturing activity.

What in the above is described as true of New York would be true also to a proportionate degree of Boston, Philadelphia, Baltimore, and other seaboard cities, which depend upon nearly the same sections for raw materials for their tables and factories and for the distributive markets for their finished wares.

Without comment, further and distinguished testimony from widely separated portions of the country in behalf of a ship channel from the Great Lakes to the sea is appended:

Joseph R. Oldham, naval architect, Cleveland:

With a deep channel to tide water our lake steamers could find work all the year round.

Denison B. Smith, Toledo, Ohio:

With an outlet from the Great Lakes our ships could roam the world-wide seas and successfully compete in a winter campaign with all other flags.

James Fisher, M. P. P., Winnipeg:

The greatest growth and development of the future will be in the region of the Great Lakes, which makes imperative the duty of providing an outlet for its commerce.

Capt. Joseph Sellwood, vice-president Minnesota Iron Company, Duluth:

Every increase in the depth of our Great Lakes channels enlarges the mineral output, cheapens transportation, lowers prices, and benefits the whole people.

Hon. Martin Pattison, owner of Minnesota Bessemer ore mines, Superior, Wis.:

If the limitless mineral deposits tributary to the Great Lakes can have the amplest possible water transportation and an adequate outlet, no part of the world will be able to match them in quantity, quality, or price.

Arthur J. Moxham, president Johnson Steel Company, Lorain, Ohio:

In the next generation the Great Lakes district will control the iron and steel trade of the world. In the proper distribution of the manufactured product, therefore, the question of deep waterways is all important. More than all things else would a deep channel from the Great Lakes contribute to putting America in its proper place as the first steel producer of the world.

Gen. R. Stone, special agent of the Government:

We are handicapped in all the markets of the world by the enormous waste of labor in the primary transportation of our products and manufactures, while our home markets are restricted by difficulties in rural distribution which not infrequently clog all the channels of transportation, trade, and finance.

Lewis M. Haupt, C. E., Philadelphia:

Another benefit resulting from deeper internal waterways would be the increase in the amount and value of our exports, thus converting a deficit into a surplus and making us a creditor instead of a debtor, paying our balances in goods and products instead of in gold, and stimulating our manufactures by the lower price of raw material provided from the home market. It thus extends its beneficent influences beyond the limits of the nation and assumes an international importance. These generalities are abundantly illustrated in the case of France, Germany, and other countries. The French Government has expended many hundreds of millions on these works, and it is stated by their political economists that the canals, even when free, pay 5 per cent per annum in economizing the national wealth.

Hon. William W. Bates, ex-Commissioner of Navigation:

Deep-water navigation through the lakes and to the sea is an improvement of national importance and utility. As such it deserves popular consideration.

But there is another view in which the national interest appears. A deep waterway through and from the lakes to the sea would remove an obstruction now preventing the enterprising and energetic people of this region from the application of their resources in building and running vessels in the foreign trade. The shipbuilding and freight-carrying business of these lakes, if not already, soon will be, overdone, and the whole country would be benefited if this pent-up power could find a new field for life and activity. New blood in the ocean transportation business is badly needed. I know of no place whence it could be obtained so well as from these lakes. Here we have the courage, the skill, and the energy that have made the West the foremost business section of the United States. Here is where the young men of the nation have had a chance and have shown to the world what that means in a free republic. Here is the place to build ships for a foreign trade, to own them, and to run them from our elevators and our warehouse docks to and from all parts of the world. Deep-water navigation between the sea and these lakes, through our own territory, confined to our flag, as it should be, would go far toward the solution of the shipping problem. It would immensely increase our naval power and raise our national rank; it would vastly enlarge and fortify our commercial credit; it would always assure a favorable balance of foreign trade; it would give the young men of our country another chance. They would go forth to the sea and devise new methods of doing the business of the world. Their enterprises and successes would be cheap to our nation, at the cost of the improvements necessary to be made.

By sending our exports to market in our own ships we would receive for the service the 10, 15, or 20 per cent of their value now added for freight, but which is now earned by foreign shipping. The work of the foreign ships brings us into debt abroad, whereas the work of our own marine would keep us out of debt and keep our gold at home. Here is a simple problem that will illustrate the functions of a ship employed in foreign traffic:

There is a cargo in New York and another in Liverpool, each valued at \$100,000. Freight is the same both ways. An American steamer takes our cargo to Liverpool, and a British ship brings the cargo to New York. We build, equip, man, provision, insure, and run our own cargo, and the British do the same for theirs. There is a fair exchange of goods and services, and the balance of trade is even between the two countries.

Now, suppose that a British steamer carries both cargoes. The freight is equivalent to 20 per cent of value in each case. The banking, insurance, and other expenses are 5 per cent. Then the British account will stand:

One cargo.....	\$100,000
Freight on two cargoes.....	40,000
Insurance, etc., two cargoes.....	10,000

Total British credit.....	150,000
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The American account will stand:

One cargo.....	\$100,000
Adverse balance of trade.....	50,000

Amount of credit and debt.....	150,000
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From these transactions it is easily seen that an adverse balance of foreign trade may be due, and in our case is really due, whenever it occurs, not to a lack of exports made abroad, but to a want of shipping of our own to carry what we send. We are actually paying to foreign shipping every year a sum as large as that collected at the customs houses. The only fear of our own commercial men is the export of gold to balance our foreign trade. If we had transportation in proportion to exportation the work of our marine would keep our gold at home. We would not need to fear a silver currency then. We would have safety in our foreign trade, and foreign trade enough to satisfy us all.

John E. Shaw, Pittsburg, Pa.:

When the deep waterway to the ocean is completed, with the cheaper cost of transportation and without breaking bulk, Pittsburg coal could reach New York and be sold alongside at \$1.63 per ton. A comparison of the selling prices of bituminous coal in the lake and Canadian cities and New York Harbor, will make apparent the commercial benefits from these proposed deep water ways. That the present railroad systems or any proposed system of overland carriage by rail can never bring about this enormous saving to commerce is also apparent.

Ex-Governor John W. Stewart, Middlebury, Vt.:

The rapid and enormous development of the West, with its constantly increasing product, has fairly outrun and overmatched the wonderful movement of methods of transportation.

The recent trend in the direction of combination, and consolidation of competing corporate interests, point unerringly to the wisdom and necessity on behalf of both producer and consumer of the enlargement of waterways on the line by the St. Lawrence, Lake Champlain, and the Hudson, which nature has provided so nearly complete that the artificial complement required at a cost considerable indeed, yet trifling in view of the inestimable material advantages which would immediately accrue to the vast interests concerned. That this great work is needed and needed now is certain, but not more certain than it will be undertaken and done; and the wonder of all who shall witness this consummation will be that it had been delayed so long.

Ex-Congressman Ralph Plum, Streator, Ill.:

Whatever needs to be done to better and cheapen transportation by great canals and deepening the channels that connect our inland seas, can be done, and in doing it both capital and labor will be profitably employed and the completed improvements will surely recompense producers a thousandfold, and make us a stronger nation than otherwise is possible.

S. Martindale, jr., La Crosse, Wis.:

I can see no enterprise, in which business men can engage, fraught with so much good to themselves and to their fellowmen as I believe will ultimately grow out of this deep-water navigation.

W. F. Dalrymple, North Dakota wheat king:

The United States has too long delayed aid to this project, and the action of the several States of the Union should be brought to bear to hasten the consummation of an enterprise of such vast importance to their material interests.

It matters little to the vast interests seeking this outlet to the sea what particular through route is selected only that it is the most practical and accomplished with the least delay and expense.

If the great cities of Buffalo and New York desire this route, let them exert themselves to secure it. If the cities of Montreal and Quebec and the Dominion of Canada desire it, let them move with material aid to make the great natural outlet of the St. Lawrence the real outlet of the Western Continent to Europe and the seaboard.

What matters it to the shipper what route he takes if cheapness and dispatch be secured?

It appears to me, however, that the interests of both the United States and Canada are in the direction of the natural outlet of the Lakes and St. Lawrence to the sea; yet I do not hesitate to express my belief in the desirability of an outlet through the territory of the United States to the great city of New York.

Hon. George F. Edmunds, Burlington, Vt.:

The union of the Great Lakes with the Atlantic has long been a subject of much interest to me, as I think it must be to everyone interested in physical and political geography as well as in the prosperity of those great and growing communities which inhabit both the northern and southern shores of the St. Lawrence and the chain of the Great Lakes. These fresh-water seas occupy no less than six degrees of latitude and sixteen degrees of longitude, and are bordered by eight of the United States and by perhaps the most fertile and salubrious portion of the Dominion of Canada. The situation is unique; nowhere on the globe does there exist naturally anything comparable to these great means of commercial and social intercourse and progress, and nowhere are there peoples of different nations having such resources of intercourse, whose habits and customs and social systems are really so much alike.

Surely it must be a matter of common and friendly solicitude with the people of both countries that the comparatively short link that nature has left to man to forge in the chain that will make these magnificent sheets of water in every practical sense—for the welfare of the millions of people of the vast region which embraces the lakes—great bays and harbors of the ocean to which every ship that moves on the great highway of all nations may resort. The canal, to be of much use (even in the near future) to the vast commerce of the region affected, must be a real ship canal, capable of the easy transit of the ships engaged in ocean commerce. Anything short of this would produce, I fear, a "lame and impotent conclusion."

If there be any present canal or railway interests that might be felt to be adversely affected by such a canal as I have described, I beg to say that, in my humble opinion, any such feeling is a mistaken one, for the larger the development of the vast region of country around the Great Lakes, the greater will be the increase of the use of the ordinary canals and of the railways. This, it seems to me, is too obvious to intelligent men to be enlarged upon.

Mr. Edmunds having presented the fact that trunk water courses strengthen and build up general railway traffic, a little more testimony—very interesting and some of it important and conclusive—will be added to show the benefits to land transportation of the proposed ship channel, and that broad-gauge railway men do not oppose its construction:

Col. W. Seward Webb, president Wagner Palace Car Company:

I have long felt the need of adequate communication by water between Lake Champlain and the St. Lawrence River, and I believe the time has now come when this can be accomplished. I also believe that the time is not far distant when a passageway for seagoing vessels between Lake Champlain and the Hudson River will be demanded by the business of the country. There can be no doubt that such a system of communication would be of great benefit to the United States, as it would provide a new outlet through the port of New York for a great deal of commerce.

Prof. Emory R. Johnson, University of Pennsylvania:

The waterway creates traffic for the railroads as well as for itself, makes raw materials cheaper, increases the number that are available for use, and thus adds to the products of agriculture and manufacture seeking transportation.

Col. T. P. Roberts, Pittsburg:

The most prosperous and successful railroads of the country are those which parallel the cheapest water routes.

T. G. Shaughnessy, general manager Canadian Pacific Railway:

Whatever benefits the whole people will benefit the railways.

S. A. Thompson, Duluth:

The best thing that could happen to every railroad in this country and Canada would be to have a waterway built 20 feet deep parallel to every mile of its track.

When they changed the depth of the water in the river Main from 4 to 12 feet between Frankfort and Mentz the railroads were greatly frightened. During the first year traffic increased 65 per cent. Of that increase the railroads got 36 per cent. The next year the business of the river had a further increase of 48 per cent and the railroads had an increase of 54 per cent.

When they talked of building the elevated railroad in New York City the surface roads thought it would destroy their business, but the surface roads to-day are paying better dividends than before the elevated was built.

It may be a surprise to some here to know that the Pennsylvania Railroad either owns or controls and operates 800 miles of canal to-day. When the great flood came a few years ago and destroyed the canal along the Potomac River money was furnished at once to reconstruct that canal; and men who are at the head of the Chesapeake and Ohio Railroad say that the improvement of the Kanawha River was the best thing for their traffic. Seeing things as they actually exist they would help us ask for \$500,000,000 appropriation for deepening our waterways.

J. G. McCullough, receiver New York, Lake Erie and Western Railroad Company:

I can not conceive of any work fraught with more momentous consequences to the material interests of that great region that stretches from the mouth of the St. Lawrence to the far West and which lies upon both sides of those magnificent inland seas that empty into the Atlantic through the St. Lawrence.

The work is one that should receive not only public attention but, in my judgment, favorable governmental action upon the part of the United States and Canada. If this work should be carried out upon a grand and comprehensive scale then sea-going vessels loading at all the ports of the upper lakes would be enabled to deliver their cargoes not only at Cleveland and Buffalo but at all the points on the St. Lawrence to its mouth, as well as at any port on Lake Champlain, and through the deep-water connection with the Hudson at Troy and Albany and at New York City itself without breaking bulk.

No man can foretell the material blessings that would be conferred upon the people inhabiting the Great Lake region by deepening the waterways so that the ocean-carrying and Atlantic Coast trade might ride safely upon these inland waters. The agricultural, mining, and manufacturing interests of this great region would grow and multiply into an empire that would of itself furnish the world with the necessities and luxuries of life. The scheme is so grand and comprehensive and, withal, so pregnant with future development as to be worthy of our De Witt Clintons.

Hon. Frank A. Flower:

In the United States the total railway mileage is about 180,000 miles. The total capital stock of all railroads in the United States is \$4,700,000,000; bonds, \$5,500,000,000; other obligations, \$1,000,000,000; total, \$11,200,000,000. This is an average per mile of \$62,222.

As one-third of this railway mileage is in the Great Lakes basin, directly upon or tributary to their waters, the total amount of capital represented in railway property along the competing water route from Lake Superior to the sea is \$3,733,000,000.

In these hard times about 75 per cent of railway capital stocks pay no dividend, and probably for 1895 20 per cent of railway bonds defaulted their interest. But the railroads in the Great Lakes basin are not the ones whose bonds are in default or whose capital stock pays no dividends.

The proposed canal, in a more general view, is peculiarly worthy. It is for the benefit of American ships, American shipmasters, American

products, American consumers, American manufacturers, and American development and defense—facts that can not be lost sight of.

As further and other reasons, if any are needed, for reporting this bill with a recommendation for passage, your committee add hereto and make a part hereof the brief prepared by Hon. Frank Abial Flower, executive secretary of the International Deep Waterways Association. The great conventions of this association, representing all sections of the country, have repeatedly and earnestly indorsed the project of a ship channel from the Great Lakes to tidewater:

THE MARITIME CANAL OF NORTH AMERICA.

[Statement by Frank Abial Flower, executive secretary of the International Deep Waterways Association.]

The bill to incorporate the Maritime Canal of North America seeks no appropriation, grant, or guaranty from the Government now or hereafter. It provides simply that the persons named therein, with their associates, shall be chartered with the powers necessary to construct and operate a ship canal from the Great Lakes to tidewater.

These persons comprise transportation and business men, engineers, manufacturers, and bankers, some of them of large wealth, who, seeing no immediate prospect that the Government will or can assume the great work for which the charter provides, and believing that the enterprise will pay a reasonable profit after relieving commerce of many of its burdens, wish a national franchise for their national undertaking.

Their main office is in the city of New York, at 66 Broadway, with agents in the principal foreign countries, and engineers, draftsmen, model makers, contractors, etc., busy at home.

This application is due to no sudden impulse, as years of labor and large sums of money have been spent in perfecting their projects, by careful studies, surveys, examinations, and estimates, and in securing valuable rights and concessions in foreign countries.

Concerning the utility and value of water, especially deep-water, transportation, such as this corporation proposes to establish, it is absurd to offer argument. In a compilation called *Twenty-four Sermons on Transportation*, to be found in the annual report of the International Deep Waterways Association for 1895, occur the following:

James J. Hill, president of the Great Northern Railway and of the Northern Steamship Company: "The matter of transportation is one of the most vital to all, next to the cultivation of the soil. There can be no question but that the cheapest transportation that can be furnished in any way is by a good steamer and deep water in which to run her."

James Connec, M. P., Canada: "The greatest problem of to-day is how best and quickest to reduce to a minimum the difference in the price paid by the consumer and that realized by the producer. Water will solve it."

W. W. Bates, ex-United States Commissioner of Navigation: "A sea-girt country, like our own, neglecting navigation, need not expect repute for statesmanship. A shipless nation has but a faint hold on freedom and prosperity."

Karl Ritter: "The degree of a nation's civilization depends on the length of her coast line."

Emperor William II, of Germany: "Seas do not divide; they connect."

Lord Bacon: "There be three things which make a nation great and prosperous—a fertile soil, busy workshops, and easy conveyance for man and goods."

Francis B. Thurber, New York: "Water lines are the salvation of this country and should be developed and extended in every possible way."

Chauncey N. Dutton, C. E., New York: "Next to the protection of life and property, transportation is the most important concern of civilized existence."

Testimony like the above, from equally distinguished sources, might be produced almost indefinitely. It is all interesting and conclusive, but unnecessary. There are three principal things to be considered in connection with this matter:

First. Competency of Congress to grant the desired charter.

Second. Advisability of enacting laws to authorize private capital to undertake what the Government ought to have accomplished years ago.

Third. Necessity for and utility of the proposed enterprise.

FIRST—COMPETENCY.

Acts of Congress.—In 1811-12 a proposition was before Congress for a grant of lands to aid in constructing the very canal for which simply a charter is now asked.

The grant was to be general—in aid also of the Erie and a dozen other canals. So bitter was local jealousy at that time and so strong the belief that the grant, if made, would result in nothing but the construction of a canal across the State of New York, and that such a channel would benefit no part of the country except the Empire State, that the bill was “pocketed,” and New York was forced to go ahead single-handed to build her waterway—the Erie Canal.

Making a beginning on the spot where the Pilgrim fathers landed, Congress on May 26, 1824, voted \$20,000 to preserve and improve Plymouth Beach, Massachusetts. On the same date, to appease Western Representatives, a grant of land was made to the Wabash and Erie Canal, in Indiana, but no certificates were issued under the act.

In 1826 Southern statesmen, seeing that New York had a canal that was actually doing business and diverting trade, passed a law in Congress under which the Secretary of the Treasury, in September of that year, subscribed for 600 shares of the stock of the Dismal Swamp Canal Company, paying therefor \$150,000. In June, 1829, under an additional act, he purchased 200 shares more of the same stock for the sum of \$50,000. The Dismal Swamp Canal, a narrow, shallow course for the passage of logs and timber, was dug by slave labor at small expense. When it was disposed of the Federal Government and the State of Virginia lost the sums they had invested in it.

In the following year there was a general awakening in the direction of grants of lands and money in behalf of internal improvements, since continued on a broadening scale, as follows:

	Acres.
1827-1848, Wabash and Erie Canal, Indiana, six grants	1,466,366
1827-1852, Wabash and Erie Canal, Ohio, two grants	266,535
1827-1854, Illinois River and Lake Michigan Canal	290,915
1828, general canal purposes in Ohio	500,000
1828-1830, Miami and Dayton Canal, Ohio	333,826
1838, Milwaukee and Rock River Canal, Wisconsin	125,431
1852, St. Marys Falls Canal, Michigan	750,000
1865, Portage Lake Ship Canal, Michigan	400,000
1866, Lac La Belle Ship Canal, Michigan	100,000
1866, Sturgeon Bay Ship Canal, Wisconsin	200,000
Total	4,433,073
1828, Tennessee, Coosa, Cahawba, and Black Warrior rivers improvement..	400,016
1846-1867, Fox and Wisconsin rivers, Wisconsin	683,802
1846, Des Moines River, Iowa	322,392
Total	1,406,210
Grand total	5,839,283

The grants and subsidies for military and post roads are omitted, having no connection with navigation.

From 1824 to June 30, 1895, the Government expended on river and harbor work in cash, not including subsidies, \$246,068,685.

The policy and validity of the acts and resolutions making these great grants and expenditures during the past seventy years have never been questioned.

Power of Congress.—If Congress can, as it does, enact laws for the Government and regulation of traffic carried on under hundreds of local and State charters, it unquestionably can itself grant charters for carrying on such traffic. It has acted on that theory.

In 1889 it enacted a law extending a franchise to the Nicaragua Canal Company, whose entire rights, privileges, operations, and property were to be in a foreign country. The validity of even this form of charter has not been called in question.

In 1890 it chartered the North River Bridge Company, granting authority to certain individuals to construct a bridge over the Hudson River from the city of New York to the State of New Jersey. The franchise contained the broadest grant of powers. Some aggrieved property owners, desiring to prevent the construction of the bridge thus authorized, attacked the charter itself. The case was twice before the United States circuit court for New Jersey, and on appeal was decided in the United States Supreme Court, October term, 1893, Mr. Justice Gray delivering the opinion, from which there was no dissent.

He stated that the validity of a charter granted by Congress for commercial purposes “rests upon principles of constitutional law now established beyond dispute. * * * The Congress of the United States, being empowered by the Constitution to regulate commerce among the several States and to pass all necessary and proper laws for carrying into execution any of the powers specifically conferred,

may make use of any appropriate means for this end. * * * Congress, therefore, may create corporations as an appropriate means of executing the powers of government."

Mr. Justice Field, in *California v. Pacific Railroad*, says:

"The power to construct, or to authorize individuals or corporations to construct, national highways and bridges from State to State is essential to the complete control of interstate commerce. Without authority in Congress to establish and maintain such highways and bridges, it would be without authority to regulate one of the most important adjuncts to commerce. * * * Congress has plenary power over the whole subject."

Thus the first proposition is disposed of completely in favor of the passage of the bill.

SECOND—ADVISABILITY.

Present unfavorable conditions.—The steady increase in commerce on, into, and out of our Great Lakes; the long distances over which raw and partially raw materials must travel to reach their ultimate market; the increasing pressure of foreign competition in like products; the precarious condition of interior producers and the strain under which seaboard manufacturers and consumers are laboring; the depleted National Treasury, and the emaciated national revenues resolve all material arguments in favor of deciding the second proposition also in the affirmative—for the passage of this bill.

The Government's advantage.—By granting such a charter as is contemplated the Government does not, in sentiment or fiber, part with any portion of but enlarges its sovereignty and multiplies its reserve resources. Under the decisions of the United States Supreme Court a corporation so chartered is the agent of the Government for the promotion of the general welfare. Whatever, therefore, it creates is simply held in trust or operated for the people and bears essentially the same relations to the people as is accomplished by expenditures from the nation's treasure.

So, if the Maritime Canal Company of North America can not raise the money to construct the proposed ship canal within the limit provided, its possession of a defunct franchise can harm no one nor prevent the Government or others from proceeding with a like project on similar lines; but if, as the promoters allege, they shall be able to raise the required cash and complete the enterprise, the people will have acquired an internal improvement of never-ending benefits, over which the Government will exercise full control and supervision, and which may be taken over at once in time of war or distress or whenever Congress shall deem its possession desirable in time of peace.

Work accomplished by the company.—The Government, if it were financially able, could not take up the project in question for some time. It is in possession of no surveys, maps, examinations, reports, or estimates in relation to the several mooted routes, notwithstanding the subject of a ship canal from the Great Lakes to the sea has been under discussion in this country for more than one hundred and fifty years and in Canada an actual undertaking, now drawing to completion, for more than one hundred years.

On the other hand, the company asking this charter has made sufficient surveys, examinations, and estimates to be convinced of the feasibility of the route selected over the others; knows the nature of the material to be handled, the commerce to be accommodated, and the resources to be developed; has estimated the cost and calculated the income of the proposed canal, and has developed, patented, and owns a pneumatic lock, the Dutton model, which, using but a medium of water, will hoist the largest craft over a high or low lift with equal ease and swiftness—an appliance of unequalled power and capacity, the use of which will revolutionize navigation in the first cost of as well as efficiency and economy of operating internal improvements as fully as the locomotive revolutionized land traffic and trade. In short, it solves the problem of constructing and operating internal waterways.

Besides owning these valuable appliances and the patents thereon the company has a broad franchise from the Dominion of Canada for constructing a ship canal from Lake Erie to the Atlantic Ocean and to Lake Champlain, en route to New York, known as "56 Victoria, chapter 66." Hence it can, if properly chartered in the United States, build to and connect with all Canadian channels and works, and transfer, divert, and use Canadian waters for the benefit of commerce—a thing the United States Government could not and dare not undertake—without the intervention of international diplomacy or agreement, which might be long if not indefinitely delayed. This suggests a statement of the fact that the longer our commerce shall be compelled to wait for the facilities contemplated the more will other nations, competing in like products and wares, with the advantages of cheaper labor, cheaper lands, lower interest, and nearer proximity to ocean distribution, gather up the threads of weakened trade, which, once lost, may never be fully recovered.

A shrewd Irish judge said: "Possession is nine points of the law, and the tenth point is kaping of it."

The Government, being unprepared to take up this or any other great improvement without issuing bonds, and having granted millions of acres of the public domain, millions of dollars in bonds of the public credit, and other millions in defaulted interest to private parties for the construction of railways, which always have been and still are the property of private individuals and corporations, can perform no smaller service to overburdened commerce than to grant what is asked for in this bill.

THIRD—NECESSITY AND UTILITY.

Facts all on one side.—Concerning the third proposition, Congress is not called upon seriously to render judgment. The matter is simply one to be considered, as Federal charters should not be granted to fake projects or enterprises of doubtful utility. However, statistics and demonstrations of the vastness of the commerce to be accommodated by the proposed ship canal are everywhere, and everywhere authentic and irrefragable. They are familiar to all. They require no repetition. In fact, there is no opportunity for repetition, because the figures of one day are always too small for the facts of the next. The late Gen. O. M. Poe, for many years in charge of the Great Lakes improvements, said: "For thirty-five years I have watched the increase in our lake commerce, but neither I nor anyone else has been able to expand in ideas at the same rate. The wildest expectations of one year seem absurdly tame by the side of the actual facts of the next."

Facilities always create traffic; but without the increase which the completion of the work will be sure to bring, existing business is ample to make the investment, on a reasonable basis of expense, profitable. Of course, the canal can do little unless it shall afford ampler and cheaper facilities than competing lines by land and water. If, having done that, it shall pay a return on the investment, the canal will have proved itself needed, commerce will have been benefited, and the wisdom of Congress in granting the charter will have been vindicated.

If it shall not pay, all existing facilities for the accommodation of the traffic of the country will remain unimpaired; a great watercourse will have been added to the resources of the nation; an immense amount of private capital will have been distributed among contractors, workmen, and furnishers of supplies; and a work of national value will be on hand to be acquired by the Government, if wanted, on lower terms than would have been possible under any other conditions.

The success of the company will multiply the occupations of our people, add to the resources of nature, contribute to the profits and prosperity of the producer, lighten the burdens of the manufacturer and consumer, and relieve the Government of risk and expenditure in securing a prodigious internal water course, for which there is and has been public clamor and recognized necessity, as well as open new avenues in which private capital may find profitable employment.

Thus it seems that all possible views of the case point to the desirability of granting the required charter.

New elements of foreign competition.—There is a broad, national aspect to the situation as disclosed by the direct arguments in behalf of this charter in which Congress, solemnly charged with the duty of promoting and conserving the public welfare, must take a keen interest. It is involved most clearly in our ability or lack of ability to compete with foreign producers and manufacturers amidst an industrial and commercial revolution throughout the world, which, in none of its features, is favorable to the United States and also in the question of military defense. On the former point portions of a report made by the writer two years ago will be conscripted for duty here:

"For years students of domestic economy have seen coming in America an universal era of lower prices, an epoch of stagnation, to be followed by a revolution in trade channels and a readjustment of wages, prices, and profits. From this era of depression it seemed certain that this country could not rise to her former height, but must accept a relative position brought about by a general leveling in all countries engaged in competing occupations. With the productive areas of her competitors close to ocean transportation and her own forests, mines, and grain-fields averaging 1,500 miles from tide water and nearly 5,000 miles from the great market centers, she must encounter disaster in the inevitable readjustment. The grind of that disaster, now upon us, can not be ameliorated in some of its most oppressive features except by overcoming distance, cheapening transportation, bringing the ocean—for we can not move the fields—back to the breadbasket of the continent.

"The world is increasing in population and therefore in capacity to consume, yet our export business is restricted and unsatisfactory, largely because it costs too much to carry our products to market.

"We are helpless as to wages, the rigorous climate of a large section of the country requiring provision for so much more and better food, clothing, and shelter that our workmen must and always will have larger compensation than competitors farther south.

"Besides, we invented and have had the exclusive use for years of modern appliances for carrying on industrial and agricultural operations, so that, notwithstanding our higher standard of wages and living, we have been able to compete with Hungary, India, Australia, New Zealand, Russia, and other productive countries and make money, and make it rapidly, too. We had the self-binder, they the sickle; we had the gang-plow, they the spade or stirring stick; we had the broadcast seeder, they hand sowing; we had the steam thrasher and header, they the flail; we had elevators and powerful cleaning machinery, they the winnowing board and canvas covering; we had grain cars and fast freights, they aprons, carts, bags, and rafts. These, with similar disproportions in our favor in other branches of human activity, kept America well and easily in the lead.

"Now all this is changing. Our competitors, taking on new life and energy, are buying and using the implements and appliances which we invented and which so long made us invincible—the wonder of the world. Thus equipped, with their cheaper labor, lands, rents, food, and interest, and their more modest ideas of life, they will outstrip us and drive us from the markets of Europe completely unless we shall be provided with very much cheaper and ampler transportation for raw and bulk products—timber, grain, meat, coal, ores, and flour.

"A map could be presented of the possibilities of competing countries that would be startling. There are three vast areas, almost untouched, just becoming active, either of which is capable of producing from 3,000,000,000 to 8,000,000,000 bushels of wheat, whereas the total product of the globe is only 2,500,000,000 bushels, of which the United States furnishes but 625,000,000 bushels. If in wages and cheapness of living we can not compete with these giants we must expect to be driven of the export business by them unless we can establish cheaper and less complex methods of transportation.

"In that direction, then, we must look for relief and future strength; but some seem to think the project under consideration a thing of another century—of the remote future—and therefore not worth present attention. There could be no greater error. By the use of modern appliances—the Dutton pneumatic lock and the excavating machinery developed by the Chicago canal—it would be easy to construct a ship channel from the Great Lakes to the sea in from three to five years, the period required to mature a good horse or cow. No one thinks of abandoning the dairy or stock business because cattle are not born full-grown and mature or of cutting off appropriations to the schools because several years are required to educate a child.

"To bring ample water communication with the entire world up to the virile young cities on the shores of our Great Lakes would result in an industrial and commercial revolution. Indeed, no other conformation of the globe presents the inspiring opportunity to extend the ocean by insignificant artificial works 2,000 miles into the heart of a continent, bringing, so far as they may be needed, the markets and the riches of the earth with it and there creating scores of new ports by exchanging the mineral deposits of the Gogebic, Marquette, Ashland, Menominee, Mesaba, and Vermilion ranges; the cattle and wheat from the ranches of the West; the food products of our national breadbasket, and the timber resources of interior forests for the cotton, sugar, tobacco, coal, rice, oil, fruits, and precious woods of other sections.

"It is a great and beneficent project, and, a few years hence, when the results of the accomplished enterprise shall have spread their invigorating influences over the land, those who now oppose and hamper its promotion will stand in history as obstructors of progress and enemies of the people."

An uncoiling monster.—Since the foregoing was prepared the myriads of industrial larvæ in yellow-tinted Asia, gestating for centuries, have begun to gnaw through their cocoons. The Chinese Empire has applied for admission to the International Postal Union; has begun the construction of railways and the introduction of electricity, and is perfecting plans for a modern postal system—harbingers of a significant revolution.

Napoleon, a century ago, marching mentally over the earth to determine how much of it he should appropriate, came upon Asia. Wise beyond his time, he exclaimed: "Here is a giant. It is asleep. Let it sleep."

But it is no longer asleep. The countless hordes of China and Japan, like a monster snake slowly uncoiling for a supreme blow, are preparing to enter the industrial field against the world, the initial invasion being planned for America.

Can we match them? Not in low wages, for they are absurdly happy on a franc a day. Not in patient industry, for they toil, without labor union, walking delegate, or murmur, eighteen hours a day. Not in economy, for centuries of contention with underproduction, at times reaching the line of famine, have taught them to live in health where we would perish. Not in saving, for they have carried hoarding to the verge of desperation for a thousand years. Not in abstemious habits, for the saloons of the city of New York represent a greater drain upon society than all the dissipations of the Chinese Empire. Not in war, when they shall have learned to

make and use modern implements of destruction, for they can give man for man, or two for one, until the last soul in the United States shall have been destroyed, and not even miss their losses.

Although they have more canals by far and perhaps cheaper carriage for small goods than any other country, we can excel them in transportation if we will. That in fact is what we must do, for already, with the advantage of 200 per cent furnished by their silver standard, they are invading America with wares like our own, underselling us in our own markets. Thus it is clear that our people must prepare for a struggle with the Orientals, the severity of which can hardly be foretold.

"Cannon to left of them, cannon to right of them, cannon in front of them volleyed and thundered." Canada has just agreed to subsidize a new transatlantic steamship line; Argentina is preparing to do the same; Prussia is using government funds to erect free grain elevators and warehouses for the benefit of the farming interests, and Russia is injecting enormous energy into railway and canal operations in behalf of natural products.

What, then, is more urgent than that our surpluses be provided with a deep and ample outlet to the sea, which is free to all ports, products, and peoples, upon the most advantageous terms of competition?

National defense.—It is or ought to be unnecessary to discuss the military or naval features of this enterprise. The proposed ship canal can not be considered a new or open way for British warships to more easily reach New York, for that city is directly upon the high seas, freely exposed to attack at all times. It is rather a new course on which the ironclads and torpedoes of the United States might cruise safely on their own soil to within gunshot of Montreal, there to cut the Dominion in twain, as the wasp is disabled by the light blow required to sever its tiny waist.

However, the war feature is repugnant. It is not one that should be much discussed. It is, indeed, one that will probably never get beyond the field of discussion, for England, the mother country, holding millions of our city, State, school, and Federal bonds; our largest consuming buyer; a heavy owner of our breweries, flouring mills, timber and mining lands, and the chief patron of our borrowers, will never again fire a hostile gun upon our shores. However much she may bluster and grab, she can not do it; we can not afford to have her do it.

The peace side of the question is the one we should comprehend. Without the conquests of peace there will be no strength or spirit for war. That is what makes England powerful. That is the feature ever kept in mind by the Canadians, who do not fear the results of a ship canal of the broadest dimensions, but court its coming and look forward with confidence to the fruits of its consummation. Therein are they wise.

The most enduring coast defense is ample interior communication. The strongest standing army is a prosperous and contented community. The best national fortifications are those which fortify the people.

It is not great fortifications; it is not many warships; it is not merely a numerous population; but a virile, progressive, spirited, and independent people, full of genius and resources, that is respected by foreign friends and feared by foreign foes.

It must be confessed that the Great Lakes as a means of national safety and defense, compared with their utility to Canada in that direction, can not be referred to without humiliation. From Belle Isle to Port Arthur, nearly 2,500 miles, Canada, with only 4,800,000 inhabitants, has a national highway within her own hands, subject, of course, to treaty rights, created out of waters extending even more favorably along the borders of this country, which, with 70,000,000 people, has lifted no finger to develop an equal and corresponding outlet—an equal resource in time of peace and an equal contributor to victory in time of war.

Thus, considering the possibilities and exigencies of war, the ship canal is urgently needed.

DOMESTIC ECONOMIES.

Great possibilities.—Once the mighty waters of the St. Lawrence system poured over Lake Champlain and down the trough of the Hudson to the ocean. From a commercial standpoint the proposed channel of the Maritime Canal will again bring the mouth of the St. Lawrence and the outlet of the Great Lakes down to New York.

That means more than words can well express.

Even a canal around Niagara Falls would add a third to the distributive area of the Great Lakes. On this point the veteran, Lyman E. Cooley, says: "Lake interests are now practically developed on the four upper lakes, on maximum routes of 900 to 1,000 miles. Suppose you add Lake Ontario, the St. Lawrence, and Lake Champlain, which are equivalent to two new lakes, with a maximum route of 1,400 miles—an addition to navigable area, length of route, and direct territory of 50 per cent. May we not believe that ton mileage would then be increased more than 50 per cent on account both of longer routes and more territory, and would not this be a justifiable work?"

New York.—The city of New York owes more than half of her wealth, growth, and power to the Erie Canal. When that highway was opened the cheapest freight to Lake Erie was \$100 per ton. Now the railways carry grain for about one-hundredth part of that rate; the canal, less terminal charges, for even less.

But New York and the country have outgrown the Erie Canal. Commerce is increasing, the country is expanding, New York is growing, consumption is enlarging, receipts at Buffalo are swelling, but in handling and transporting products the great community at the mouth of the Hudson is not holding its own. The demands of trade and the volume of commerce have outgrown its methods and capacities. Neither the railways nor the Erie Canal can compete with the new traffic channels that have been opened in other directions.

In 1882 New York received 31 per cent and in 1886 40 per cent, but in 1895 only 11 per cent of the corn export. In 1882 she received 50 per cent, but in 1895 only 35 per cent of the flour export. In 1882 she received 65 per cent, but in 1895 only 26 per cent of the wheat export of the country. In 1880 the Erie Canal carried 70,000,000 bushels of wheat to New York, but in 1895 only 15,000,000 bushels.

All things being equal, the line of domestic consumption fixes the route of foreign export, but cheaper and swifter facilities at New Orleans, Norfolk, Galveston, and Newport News have decimated the traffic of New York. In September a new transatlantic steamship line will go into operation from Charleston, and during the year a new subsidized line will begin sailing from Montreal.

There is absolutely no power or machinery by which New York can adequately meet these new elements of competition except through a ship channel to the Great Lakes. Without it the commercial disasters disclosed by the March report of her Produce Exchange must continue.

However, the ultimate solution of the problem lies deeper. She can not expand and thrive on mere tolls and transfer charges. She must manufacture, finish, and distribute. That, to a much greater extent, is now impossible, because she has neither raw materials nor adequate access to them. For instance, next to that of Lake Superior, the largest known deposit of ores of iron is along Lake Champlain—Bessemer and non-Bessemer. The existence of this rich bed has been known for generations, yet far away Lake Superior ships in a season as much ore as equals half the product of Lake Champlain for all time. Why? Because the Superior ore fields enjoy ample water transport, while the Champlain district does not; yet one is 1,000 miles from market and the other is in the midst of a rich and populous consuming area.

The president of a steel company in the Hudson Valley writes that a ship canal to Lake Champlain would reduce freights one-half. Such a reduction would create an export trade in ores and billets and establish furnaces, steel mills, and steel ship yards at the mouth of the Hudson, thus increasing the local consumption of Western food products, enlarging railway traffic, and so supplementing the commercial transactions of New York that her prosperity would be permanently renewed. Lake Champlain would then be to the East what Lake Superior is to the West.

New York must so engage a large portion of her energies that transportation will not be the mainstay, but a mere incident of her prowess. The grocer does not open a store in order to make business for delivery wagons; but he buys delivery teams for the correct purpose of accommodating, controlling, and cheapening his grocery trade. That is the position New York must occupy. She must become a work-house and center of distribution, with railways, canals, waterways, vessels, and locomotives of the greatest amplitude as her delivery wagons.

That is why she wants a ship canal to the Great Lakes and why its coming can not be too swift.

New Yorkers themselves admit the gravity of the situation, as this extract from the report of a special committee of their produce exchange to the Joint Traffic Association, made in March, 1896, will disclose:

"Every seaboard point having a suitable harbor is already alive to the diversion of the foreign trade of New York. Galveston is making stupendous strides as an outpost of importance. Favored by the United States Government by an expenditure of more than eleven millions of dollars in the improvement of its channel and harbor, ocean steamers of the largest tonnage are admitted to its wharves. New Orleans expects to command the ocean tonnage that New York naturally attracts. Aside from the advantage the Mississippi River gives to that port, railroad combinations have been formed, as noted in the case of the Illinois Central, reaching the points of grain production, and this road has just awarded a contract for a new elevator at New Orleans.

"Through lines to other seaports are being perfected by combination with interior roads or by construction and terminal facilities enlarged. The Pittsburg and Gulf Railroad will have its road completed by next fall. Newport News and Norfolk, a few years ago not considered as a factor in the foreign trade of the country, now are prominent rivals of this port.

"Commerce, like other streams, seeks the line of least resistance, and how long, we ask you, gentlemen, in this competitive contest can New York, under the present conditions, with all these forces arrayed against her, and, in addition, a discrimination imposed by the railroads in a differential freight rate, retain her prestige as the principal outport of the New World?"

The answer is: Forever, with a ship channel to the Great Lakes.

Philadelphia and Baltimore.—The seaboard cities of the Atlantic Coast, North and South, are equally interested in a waterway to the Great Lakes. All must have raw materials for their tables and factories and diversified markets for their wares. It will be a happy day when coke from the Chenango Valley, coal from Lake Erie ports, iron from Lake Champlain and Lake Superior, bread and meat from Chicago and Superior, and timber from the Western forests shall land at Richmond, Charleston, Savannah, Philadelphia, Baltimore, Beaufort, Norfolk, and all other coast ports without breaking bulk, and ships return to interior consumers in the same manner. In this case the argument is made and the conclusion fixed when the case is stated.

Buffalo.—The ultimate benefits of this proposed ship channel to specific localities may nowhere be as great relatively as to Buffalo. Sitting astride the continental pathway in which meat, bread, copper, timber, and iron will find their cheapest route to market, with abundant access to coal and oil, her endless monopoly of the prodigious energies of Niagara will make her, with ship channels to Ontario and Atlantic Coast as well as foreign ports, the model manufacturing center of the world. That is self-evident.

New England.—A ship channel from the Great Lakes to the seaboard would prove an unequalled tonic for New England. Going to the West for bread and meat; to the South for cotton; to the transallegany sections for coal, iron, oil, and minerals; toward the Gulf for rice, sugar, and tobacco, and to the interior for hides and wool, the North Atlantic States became, nevertheless, the workshop, as New York was the outlet and entrepot, of the nation.

But lowering prices and the pressure of competition from centers nearer to raw materials have reached New England. During the first quarter of 1896, 100 new cotton mills were organized or put under construction south of Mason and Dixon's line, 24 of them in South Carolina, which has just adopted a law exempting new factories from taxation for five years. During the same quarter about 400 other industries were organized or put in operation in the South. The record for the first quarter of 1895 was equally formidable, and probably will be exceeded by that of 1897. This is but the beginning of a general industrial awakening in the prolific and sunny South—cotton mills nearer to the cotton; refineries adjoining the sugar cane; cigar and "fine-cut" factories amidst the tobacco plantations; steel mills at the mouths of the ore beds; tanneries at the edge of the cattle ranges; canneries where the fruits grow; wood-working machinery skirting the forests, and flouring mills at the gathering places of the wheat.

Can New England, without iron, coal, oil, meat, bread, corn, cotton, minerals, or sugar, and but a partial supply of wool, leather, and timber, continue to meet the new competition? Not without transportation more ample and cheap than any now afforded. A ship channel from the Great Lakes to the seaboard, especially via Lake Champlain, would meet the requirements. From Champlain ports lumber, bread, coal, meat, and iron could be distributed to Vermont, northern New York, and New Hampshire, and vessels passing out of the Hudson at New York would trade with Boston, Providence, Portland, and all the seaboard ports without breaking bulk.

To New England, therefore, a ship course to the Great Lakes is a vital necessity.

The South.—The peculiar products of the South must find a market abroad or in other parts of our own country. The North, the East, and the West buy most goods from others when they are selling most goods of their own. The proposed ship canal would increase the prosperity of those sections by affording cheaper carriage and wider markets for their surplus, thus multiplying their necessities and enlarging their consuming powers, and consequently extending within their borders the sale of goods and wares from the South. Hence the South, with the remainder of the country, wants the Maritime Canal of North America, and would be benefited by it.

The West.—The benefits of the proposed waterway to the West do not require to be stated, but are, of course, involved in giving access for the remainder of the country and the world to her limitless stores of natural products.

SPECIAL CONSIDERATIONS.

Tolls.—If accomplished within a time now conceivable, the enterprise in question must be undertaken by private capital. That gives rise to the problem of tolls. Of course, a canal so built must charge tolls, but those tolls will be approved by the Interstate Commerce Commission, and if they shall not be low enough to meet the competition of the free Erie canal and the Canadian canals, which will shortly be free, it will have no business.

But do those, if there are any, who object to tolls forget that the land-grant railroads, some of which have received from the Government gifts enough to build them, always charge tolls? Do not those roads charge as much for freight as any of their competitors? Can persons ride on them without paying fares? Tolls on canals constructed by private capital are no more repugnant to the people than tolls on railroads built at private expense, especially those constructed out of the proceeds of grants from the public domain. The Erie Canal, a State enterprise, collected heavy tolls for nearly sixty years and yet built the city of New York. Other canals still levy tolls, and the canals of Canada take tribute on all commerce except that for export to foreign countries.

If the Government were to build a ship canal to the Great Lakes the entire country would have to pay tolls in the form of taxes until its cost has been liquidated; but if private capital should construct it those only who use it directly or indirectly would have to pay tolls. Moreover, when the people shall have become tired of tolls they may acquire and make free the proposed canal as they acquired the Soo locks and canal, the Sturgeon Bay Ship Canal, the Portage Lake Ship Canal, and the Duluth cut-off—not one of which was originally undertaken by the Government, although since taken over by Congress, and now the most important and useful artificial waters in the Union.

Reversing the Great Lakes.—Besides the early completion of the enlarged Canadian canals to the seaboard and their probable emancipation from Government tolls, thus pressing New York still harder in the strife to hold her share or any considerable share of the eastward stream of water traffic, Chicago is about to add to the pressure by opening from Lake Michigan toward the Mississippi River the largest and deepest ship channel on the continent, for the purpose, as she alleges, of changing the Great Lakes system end for end and making her port the transferring and exporting terminus.

With the Illinois Central Railway already diverting a considerable portion of the grain trade of New York, Philadelphia, and Baltimore to New Orleans—every foot of the distance down grade—it is impossible to predict how great a permanent stream of commerce the new waterway from the Lakes to the Gulf will establish. If conditions in other directions shall continue to be unfavorable, it will be large.

It is at best a new outlet to the sea, in the hands of the nerviest and most resourceful community in the nation, and absolutely beyond the reach and influence of New York and the Atlantic seaboard except through such a ship channel to the Great Lakes as is proposed by the Maritime Canal of North America.

The writing on the wall is unmistakable.

Lake Ontario practically British water.—Commercially, Oswego, Ogdensburg, Sacketts Harbor, Charlotte, and all the ports on Lake Ontario are British. They are on our soil, on this side of the boundary, and fly the American flag, but not a ship can go east out of or come from the east into or go west out of or come from the west into them without paying tolls in British canals, thus strengthening the British treasury and enlarging the cost of home consumption.

Ontario, nearest the ocean, next to the great consuming center of the continent, stretched full length along the Empire State of the Union, has no outlet or inlet to American vessels and commerce and no great commercial or manufacturing port on its American shore.

Why? Because it has no adequate connection, east or west, with American soil, people, or business; because, so far as the United States is concerned, it is not a part of the Great Lakes system; because, practically, it is British water.

Where are the large lake cities of Canada? On Lake Ontario. Where are they in the United States? On every lake except Ontario.

On the American side of Lake Erie there are powerful ports, containing 900,000 people; on the Canadian side none worth mentioning. On the American side of Lake Huron the urban population aggregates nearly 400,000; on the Canadian side it is practically nothing. On Lake Superior the same conditions exist; but coming down to Lake Ontario, the culmination of our marvelous lacustrine system, which should be the commercial base and reservoir of our internal commerce, not the tail, we find on the Canadian coast comparatively big and prosperous cities; on the American shore, nothing but hamlets.

If Ogdensburg wants bread from Superior or Duluth, by water, she must pay tolls to Canada. If she wants coal from Ashtabula or steel and iron from Cleveland or Pittsburg she must pay tolls to Canada. If the starch mills of Oswego want corn from Toledo or Chicago they must pay tolls to Canada. If any of these ports want lumber from Michigan or Wisconsin or meat from the West they must pay tolls to Canada. If Buffalo vessels wish to trade with Ogdensburg, Cape Vincent, Sacketts Harbor, or Oswego, all in the same State, they must pay tolls to Canada.

This interesting condition of affairs has existed uninterruptedly for seventy years. Is that long enough?

If Congress shall enact this charter the Maritime Canal of North America will bring Lake Ontario into the Union, where it belongs.

Supporting Canadian railways.—The railway is much like the canal situation. The Grand Trunk Railway of Canada, by tunnel at Port Huron, crosses Michigan and Indiana to Chicago, drawing thence a large percentage of Western freight for the enrichment of Dominion and English share owners. The Canadian Pacific—practically the Government of Canada—reaches New York City, Portland, Boston, and Chicago by partial ownership or traffic arrangement, with roads on our soils which amount practically to ownership. The same great corporation, through its majority ownership of the Soo road, crosses Michigan, Wisconsin, and Minnesota to St. Paul and Minneapolis, tapping there the business of the great flouring mills, and thence passes on through the wheat fields of Minnesota and the Dakotas, toward the Dominion boundary. Having acquired the South Shore Railway, extending from Sault Ste. Marie and St. Ignace to Superior and Duluth, this same Canadian Pacific thrives upon the enormous iron, copper, and timber freights of northern Michigan and northern Wisconsin and the vast wheat and flour traffic of the head of the lakes. From Superior via the Duluth and Winnipeg, which it owns, this Canadian line reaches westward through the rich iron and timber belts of Minnesota, and is planning to push 1,000 miles farther westward across the Red River valley to Portal, draining the most reliable and prolific wheat area in the world.

Thus Canadians, aided powerfully by their Government, are taking better advantage of American resources and opportunities than Americans themselves.

The maritime canal will change the course of a considerable portion of this eastward stream of products and retain at home the wages, interest, tolls, freights, and profits which now go, and have for years been going, to a foreign country, besides lowering carriage charges, adding to the returns of producers, lessening cost to consumers, and enlarging the volume of domestic and export traffic.

To enact laws designed to accomplish these results is the highest form of statesmanship.

An international highway.—As to its status, a ship canal built under a charter from the United States, where reaching to or connecting with foreign or international waters, undoubtedly would be national. Therefore, without any agreement or negotiation under the terms of Articles XXVI and XXVII of the treaty of May 8, 1871, all the canals, rivers, and waters in Canada with which the proposed canal might connect would be free to the craft of the United States "forever" without discrimination or tolls not charged also upon citizens of the Dominion, and the proposed channel would be free to Canadian craft except in domestic or coastwise trade.

The sailing distances and canal mileage, approximately, would be as follows:

New York to Montreal, 365 miles, 60 of canals, 2 locks.
 New York to Oswego, 340 miles, 67 of canals, 3 locks.
 New York to Buffalo, 720 miles, 75 of canals, 5 locks.
 New York to Cleveland, 856 miles, 75 of canals, 5 locks.
 New York to Chicago, 1,600 miles, 75 of canals, 5 locks.
 New York to Superior-Duluth, 1,700 miles, 75 of canals, 6 locks.
 Buffalo to Montreal, 365 miles, 40 of canals, 6 locks.
 Oswego to Buffalo, 190 miles, 8 of canals, 2 locks.
 Cleveland to Montreal, 500 miles, 40 of canals, 6 locks.

The people protected.—The Government and the people will be fully protected in whatever may be accomplished under the provisions of this bill. Tolls and other regulations are placed by it under the supervision of the Interstate Commerce Commission, and at any time, either to protect the nation in peril or promote public welfare in peace, the Government may acquire the works of the corporation and settle therefor upon terms to be fixed by disinterested arbitrators. While at this point it may be noted that the charter does not permit an enormous issue of capital stock, but limits the sum to \$10,000,000, thus rendering the bonds of the corporation attractive to investors and the acquirement of the works by the Government, if that shall ever be desirable or necessary, simple.

A matchless pleasure course.—"All work and no play makes Jack a dull boy." It would be proving to confine arguments for granting this charter to the mere war and money-getting features. A ship channel, from New York via the Hudson, Lake George, Lake Champlain, and the St. Lawrence to the Great Lakes would make for the pleasure and health yacht and excursion steamer the longest, safest, and most picturesque and interesting route in the world.

Soon the Chicago Canal will connect Lake Michigan with the Mississippi River, and a very little work, which will be not long postponed, will make the curious inner Atlantic Coast channel an unbroken route from New York to Florida without once going to sea. Then St. Louis, Superior-Duluth, Cincinnati, St. Paul, Detroit, Pittsburg, Washington, New York, Richmond, Milwaukee, Toronto, Philadelphia, Quebec, Toledo, Marquette, Charleston, Green Bay, Omaha, Cleveland, Montreal, Savannah, Mackinac, Baltimore, Jacksonville, Davenport, Albany, Baton Rouge,

Troy, Memphis, Burlington, Vicksburg, and Hamilton may cruise interchangeably, for health or pleasure, to the South in winter and to the North in summer.

Thus the fresh and bracing Thousand Islands and Apostle Islands would be connected with the tropic glades and jungles of the St. John's; Crows' Nest on the Hudson, with Maiden Rock, on Lake Pepin; the tarpon of Florida with the trout and landlocked salmon of Lake Superior; the rice birds of Georgia and the Carolinas with the brants of Lake Nipigon; the Falls of St. Anthony with the torrents of Niagara; the historic Heights of Abraham with the pine-covered crags of Isle Royal; the savannas of the Red River with the pictured rocks of Lake Superior; the Creoles of Louisiana with the pagan Pillagers of Lake Vermilion; the orange blossoms of the South with the wild apple blooms of the North. Where, outside of free, glorious America, is such a marvelous circuit of infinite variety possible?

Who would not vote to help complete the entrancing picture?

No worthy opposition.—It is impossible to conceive opposition to this charter or to the enterprise it contemplates, from good sources, from forces arrayed on the side of larger commercial intercourse, on the side of the people in behalf of the general welfare.

If some representative of the ancient canal boat of 200 tons burden, fearing the prehistoric prestige of that craft will be still further interfered with, shall object, he will align himself with the stage drivers of old who clamored against Government recognition of railways and vehemently against contracting to carry the mails on steam cars. They protested that to do so would ruin their business, bankrupt the coach builders, and fill the pastures with idle horses. But who, even among the surviving stage drivers themselves, would return to the days and conditions of the lumbering mail coach and the four-horse Concord stage?

New methods and machines always provide new employments and generally better wages and profits.

Perhaps some representative of an elevator pool may object. But what does he stand for? A road agent established in the pathway of the nation's commerce, with a "stand and deliver," crippling canal traffic, striking staggering blows to the business of New York and inflicting many injuries on the producers of the West and the manufacturers and consumers of the East. His position is like that of the early Dutch, who, under arms, planted themselves on both sides of river mouths and levied tribute upon the business and traffic of the interior; not because they had improved the water courses or done anything to benefit commerce or had any right to it, but because they were there and had the power, as has the brigand in the mountain pass, to secure what they wanted or take the life that refused to submit.

Opposition of this sort—and what other can there be—can have no weight except in favor of the passage of the bill and of the project for which it provides.

Report No. 423, Fifty-fourth Congress, first session, makes any but favorable action on this bill by this committee seem impossible. The arguments on pages 5, 14, and 15 in favor of a ship canal from the Great Lakes to tidewater are unanswerable; and what this committee in that report contends for at public expense can be had by the people of the United States through the charter now asked for without the expenditure of a dollar of Government treasure. This is a thing hitherto unthought of and, previous to the invention of the Dutton lock, impossible.

I commend most heartily to this committee its own exhaustive report of February 18, 1896.

Instead of seeking ways to embarrass and restrict the operations of a great enterprise like the present, Congress will better serve the people by searching for means to encourage the investment of private capital in public improvements.

The highest compensation of a Senator or Representative in Congress, charged with the duty of voting large sums of money which his constituents must reimburse in the form of taxes, is the opportunity of legislating to broaden the money-earning and strengthen the tax-paying power of the people.

The bill to incorporate the Maritime Canal of North America presents such an opportunity.

Your committee also desire to supplement the foregoing brief with the following letters from the Toledo Produce Exchange, and C. N. Dutton and Gustav Lindenthal, of New York:

TOLEDO, OHIO, April 1, 1896.

DEAR SIR: I beg to call your attention and ask your support to House bill 7173, introduced by Mr. Cooper, of Wisconsin, to incorporate the Maritime Canal Company of North America. The purpose of the company is to construct a ship canal from the Niagara to the Hudson River. It is quite unnecessary for me to say that this charter of rights to construct this great work is the first step of progress out of the discussion of the question for years in the exchanges of the country and in various conventions. In my judgment, direct access from our American trade cen-

ters to the consumers of the Old World by a ship canal will furnish the needed great economy in transportation that is demanded in our contest with competing exporting countries. To reduce this cost of freight thence is about the only protection we can give to American agriculture, now so greatly depressed.

Hoping for your distinguished aid, I have the honor to remain,

Very respectfully,

DENISON B. SMITH,
Secretary Toledo Produce Exchange.

Hon. W. P. FRYE, *Senator, Washington, D. C.*

NEW YORK, March 24, 1896.

DEAR SIR: I beg to submit a few lines regarding the proposed Maritime Canal Company of North America, for which a bill is now before your Committee on Commerce. Last summer I was retained to examine the route of this canal and to report upon its practicability. In my report to the capitalists interested in the proposed canal, I gave it as my conclusion that the same was entirely practicable. Further examinations are to be made so as to make closer estimates of cost of construction; but this much can be said now, that it offers no insurmountable obstacles or engineering difficulties; for instance, not one tithe of those that would be incurred in the Nicaragua Canal. The commercial side of the undertaking is also such as to make its construction inviting to private capital. Competition by water for the tremendous tonnage seeking the Atlantic Coast will greatly reduce the rates on freight, which must now go mostly by rail to the seaboard, since the Erie Canal is entirely too small for the vast tonnage seeking an outlet.

The undertaking is well worthy of encouragement, particularly as the credit of the United States is not to be used for it in any form. I trust that you may, after a full examination, consider the matter worthy of your most valuable support.

Yours, very truly,

G. LINDENTHAL.

Hon. WM. P. FRYE,
United States Senator, Washington, D. C.

143 MANHATTAN LIFE BUILDING,
New York, May 1, 1896.

DEAR SIR: The bill to incorporate the Maritime Canal of North America is now in your committee awaiting your consideration.

In my judgment it leads to the only practical way to secure a ship canal between the Great Lakes and New York City. The ship canal is necessary to the continued prosperity of the great West, and of New York City, and if it is built via Lake Ontario will bring that lake, its cities, and bordering populations into and make them equal sharers in the commerce of the four upper lakes, from which they are now excluded, only one-fiftieth of the trade descending to Lake Ontario.

The whole West is unanimously in favor of this bill.

The making of such a waterway on this continent is looked on by many as a work too great and too experimental for private capital; but I would point out to you that the gross earnings of the Pennsylvania Railroad Company last year exceeded \$122,000,000; and that to open the canal on a 20-foot scale of navigation is estimated to cost only \$100,000,000, and to make it on a 26-foot scale only \$200,000,000.

The promoters of this enterprise believe that it can be built and operated successfully as a private enterprise. In that belief they are spending their money for the necessary preliminary expenses, not asking aid from the Government or any other public source. They recognize the experimental character of the work, it is true, and do not lavish and squander their means to secure a charter, as they might were the building and successful operation of such waterways an assured fact, or if they were begging Congress for vast subsidies.

They believe that recent inventions, discoveries, and improvements have so reduced the cost of building and operating canals as to make them profitable for private enterprise, and that they can demonstrate such to be the fact by the successful building and working of the proposed canal, provided Congress grants the charter; and that by so doing they will bring Lake Ontario and the northern counties of New York State and the New England States into and make them participants in the vast and profitable commerce of the Great Lakes, relieve our export trade of many of its burdens and double its volume, secure to New York City the commercial primacy of the world, and vastly increase the potential wealth of the whole people and secure its more equal distribution.

Yours, very truly,

CHAUNCEY N. DUTTON.

CHAIRMAN OF UNITED STATES SENATE COMMITTEE ON COMMERCE.

A less desirable bill on this same subject (S. 2504) was referred to the Secretary of War for his opinion and advice, who referred it to Gen. W. P. Craighill, Chief of Engineers, whose letter is hereto appended and made a part hereof.

OFFICE OF THE CHIEF OF ENGINEERS, UNITED STATES ARMY,
Washington, D. C., April 2, 1896.

SIR: I have the honor to return herewith letter from the Senate Committee on Commerce, dated the 13th ultimo, inclosing, for the views of the War Department thereon, Senate bill 2504, Fifty-fourth Congress, first session, "A bill to incorporate the Maritime Canal of North America, and for other purposes."

This bill authorizes a company to construct certain canals, and grants certain rights and privileges which are considered by the company necessary and desirable.

The only portions of the bill which appear to affect matters under the control of the War Department, and upon which an expression of opinion appears necessary, are such as concern navigable waters and channels of the United States and their use by the general public.

The bill provides for the appointment by the Secretary of War of a mixed board, consisting of one army engineer, two civil engineers, one ship captain or navigator, and one shipbuilder, which board shall consider plans and within thirty days report to the Secretary of War, and if such report be favorable the Secretary of War must approve the plans.

The privileges specified in this bill are extensive and far-reaching, and it is impossible to tell from an examination of the measure and such study as can be given the subject at this time to what extent and in what way the exercise of these privileges may affect the interests of the United States. I am of the opinion, however, that these interests will be best protected by eliminating from the bill those provisions in relation to the appointment of a mixed board, and requiring the approval by the Secretary of War of such plans as this board may recommend, and substituting therefor a provision that no work authorized by the bill shall be commenced or carried out until the Secretary of War shall have determined that the execution of such work, in whole or in part, will not injuriously affect the interests of navigation or be in violation of any existing laws enacted by Congress for the protection of such interests.

I suggest that these changes be made in the bill if it shall be decided by Congress to grant the privileges specified.

Very respectfully, your obedient servant,

W. P. CRAIGHILL,
Brig. Gen., Chief of Engineers.

Hon. DANIEL S. LAMONT, *Secretary of War.*

Your committee concur in such a portion of the amendment suggested by General Craighill to Senate bill 2504 as applies to Senate bill 3048, and also recommend certain other amendments, all of which are incorporated in the copy of the bill accompanying this report, and recommend that when so amended the bill do pass.

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